

MONITORING WELL LOG

BH1

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 24/04/13 - 01/05/13

EASTING: 535238.41

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191149.52

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.59 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
1	3.0 mbgl on 29/04/13 					MADE GROUND Brown to dark brown slightly gravelly sandy clay with fine to medium subangular gravels, plastics, bricks, slate, ashes, ceramic and paper. Sand is fine to medium. Roots and rootlets. No obvious olfactory evidence of contamination.	0.9	BH1/BS2	0.3 - 0.4 m
								BH1/BS1	1.0 - 1.1 m
								SPT = 1	1.2 m
								BH1/1	1.9 - 2.0 m
2							6.3	BH1/BS3	1.9 - 2.1 m
								2.0 m	2.0 m
								SPT = 7	2.0 m
								BH1/2	1.9 - 2.1 m
3					3.00		1.0		
						Very soft grey to dark grey slightly sandy gravelly CLAY with fine to medium subangular gravels of flint. Sand is fine to medium. Weak hydrocarbon odour. [ALLUVIUM]		SPT = 1	4.2 m
								BH1/3	4.2 - 4.3 m
								4.3 m	4.3 m
4							3.6		
								SPT = 37	5.85 m
								BH1/BS3	5.9 - 6.0 m
								6.0 m	6.0 m
5							3.6		
								SPT = 31	6.7 m
6							3.6		
7							3.6		
8							3.6		
9							3.6		
10							3.6		

NOTES

Filter sock used within installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH1

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 24/04/13 - 01/05/13

EASTING: 535238.41

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191149.52

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.59 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 23	10.45 m
12								SPT = 23	12.45 m
13									
14								SPT = 25	14.3 m
15		15.0 m			15.00	End of borehole.			
16						15 m			
17									
18									
19									
20									

NOTES

Filter sock used within installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH2

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 08/05/13 - 09/05/13

EASTING: 535273.34

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191148.76

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.68 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
1	3.5 mbgl on 08/05/13 ▽					MADE GROUND Light brown slightly gravelly sandy reworked clay with fine to coarse subangular to subrounded gravels of brick, flint and occasional slate, clinker, wood and glass fragments. Some ashy patches above 2.2 mbgl. Roots and rootlets.		SPT = 4	1.2 m
2							0.1	BH2/1 BH2/BS1 BH2/2 SPT = 4	1.9 - 2.0 m 1.9 - 2.1 m 2.0 - 2.1 m 2.0 m
3							0.1		
4							1.9	SPT = 7	3.55 m
5	6.9 mbgl on 09/05/13 ▽					Grey, slightly sandy, fine to coarse subangular to subrounded GRAVEL of flint. Sand is fine to medium. Slight oily sheen and hydrocarbon odour. [KEMPTON PARK GRAVEL] Firm to stiff grey to dark grey, slightly sandy CLAY. Sand is fine to medium. No obvious visual or olfactory evidence of contamination. [LONDON CLAY FORMATION]		SPT = 7	4.55 m
6		5.8 m 5.9 m			6.00		45.2	SPT = 24	5.7 m
7		6.5 m			6.30		21.7	BH2/BS2	6.0 - 6.3 m
8								BH2/3	6.4 - 6.5 m
9								SPT = 13	7.55 m
10								SPT = 20	9.35 m

NOTES

Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

▽ Water Strike
▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH2

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 08/05/13 - 09/05/13

EASTING: 535273.34

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191148.76

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.68 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 26	11.45 m
12									
13									
14								SPT = 24	14.1 m
15									
16								SPT = 30	15.7 m
17									
18								SPT = 25	17.2 m
19					19.10 19.20	Dark grey SANDSTONE. No obvious visual or olfactory evidence of contamination. [LAMBETH GROUP] Grey to dark grey, clayey fine SAND with white nodules. [LAMBETH GROUP]		BH2/4 BH2/BS3	19.4-19.5 m 19.5-19.7 m
20		20.2 m			20.10 20.20	Greensih grey, slightly sandy CLAY. Sand is fine to medium. No obvious visual or olfactory evidence of contamination. [LAMBETH GROUP] End of borehole.			
21						20.2 m			

NOTES

Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH3A

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 01/05/13 - 07/05/13

EASTING: 535289.82

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191131.55

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.66 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
1					1.40	MADE GROUND Brown to dark brown slightly sandy slightly gravelly clay with fine to coarse subangular to subrounded gravels of brick, flint, concrete and occasional clinker, ceramic and slate. Roots and rootlets. No obvious olfactory evidence of contamination.		SPT = 3	1.2 m
2					3.90	Soft grey to dark grey slightly gravelly sandy CLAY with fine to coarse sand and subangular to subrounded fine to medium gravels of flint. Some black organic bands. No obvious visual or olfactory evidence of contamination. [ALLUVIUM] Becoming very soft brown and peaty at 3.70 mbgl. Organic odour.		BH3A/1 BH3A/2.0 BH3A/2.0	1.8 - 1.9 m 1.8 - 2.0 m 1.9 - 2.0 m
3					6.30	Loose to medium dense brownish grey sandy fine to coarse subangular to rounded GRAVEL of flint. Sand is fine to coarse. Weak hydrocarbon odour. [KEMPTON PARK GRAVEL]		SPT = 7	2.55 m
4					6.30			SPT = 1	3.55 m
5					6.30			BH3A/3	3.8 - 3.9 m
6					6.30			SPT = 3	4.55 m
7					6.30			SPT = 21	6.0 m
8					6.30	Firm to stiff brown becoming grey slightly sandy CLAY. No obvious visual or olfactory evidence of contamination. [LONDON CLAY FORMATION]		BH3A/4	6.4 - 6.5 m
9					6.30			SPT = 16	8.05 m
10					6.30			SPT = 19	9.5 m

NOTES

Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

▽ Water Strike
▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH3A

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 01/05/13 - 07/05/13

EASTING: 535289.82

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191131.55

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.66 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11									
12								SPT = 26	11.95 m
13									
14									
15		15.0 m			15.00	End of borehole.			
16						15 m			
17									
18									
19									
20									

NOTES

Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH5

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 29/04/13

EASTING: 535328.59

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191110.55

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.16 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
1	3.63 mbgl on 20/05/13 3.60 mbgl on 28/05/13	3.6 m 3.7 m			1.40	MADE GROUND Brown to dark grey, slightly gravelly sandy clay. Sand is fine to coarse. Gravels are fine to medium and angular to subrounded brick, concrete and stones. Occasional wood fragments. Rare clinker and very rare glass and tile shards. Roots and rootlets. No odour. At 1.2 mbgl fragments of china, metal (heavily rusted) and wood, along with degraded paper (probably newspaper). No date evident. Fragments of glass and clinker. No odour.	0.0		
2					2.20	MADE GROUND Light brown with orange mottled sandy clay. Sand is fine with rare wood fragments. No odour.	0.0	SPT = 0 BH5/2.0	1.65 m 1.9 - 2.0 m
3					3.20	MADE GROUND Brownish grey, slightly gravelly sandy clay. Fine sand with rare gravels of brick, china, glass and wood fragments, rusty orange mottling on clay. No odour.			
4					3.70	Grey slightly sandy CLAY. Sand is fine to medium with occasional black organic pockets. Weak organic odour. No obvious visual or olfactory evidence of contamination. [ALLUVIUM]	0.0	SPT = 4	3.2 m
5					4.30	Medium dense light grey, clayey, gravelly, fine to coarse SAND. Gravels are fine to medium angular to subrounded of flint. No obvious visual or olfactory evidence of contamination [KEMPTON PARK GRAVEL]		SPT = 20 BH5/BS1	4.2 m 4.2 - 5.2 m
6						Medium dense light grey, gravelly, fine to coarse SAND with angular to rounded, fine to coarse gravels of flint. No obvious visual or olfactory evidence of contamination. [KEMPTON PARK GRAVEL]	0.0	SPT = 26 BH5/1	4.65 m 4.6 - 4.8 m
7					7.30			BH5/BS2 SPT = 37	5.5 - 6.5 m 5.75 m
8						Firm to stiff grey slightly sandy CLAY. No obvious visual or olfactory evidence of contamination. [LONDON CLAY FORMATION]	0.0	SPT = 14	7.75 m
9								SPT = 18	9.5 m
10									

NOTES

Drilling polymer used to flush casing into the clay once gravels had been sampled.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary percussion
Borehole Diameter: 128 mm
Screen Material: HDPE
Screen Diameter: 50 mm (ID)
Screen Slot Size: 1 mm
Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH5

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 29/04/13

EASTING: 535328.59

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191110.55

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.16 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 25	11.0 m
12								SPT = 27	12.5 m
13								SPT = 28	13.55 m
14									
15		15.05 m			15.05	End of borehole. 15.05 m		SPT = 30	15.05 m
16									
17									
18									
19									
20									

NOTES

 Drilling polymer used to flush casing into the clay once gravels had been sampled.
 Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm (ID)

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH6

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 01/05/13

EASTING: 535379.19

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191151.32

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.53 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
					0.20	MADE GROUND Brown sandy clay topsoil with rootlets.			
1						MADE GROUND Dark grey, gravelly, fine to coarse sand. Angular to subrounded, fine to medium gravels of clinker with occasional flint and brick. Rare glass and ceramic fragments. No odour. At 1.2 mbgl becoming brown with more flint gravels, less brick.	0.0	SPT = 1	1.65 m
2					1.80			BH6/2	1.9 - 2.0 m
					2.40	MADE GROUND Black fine to medium SAND. No obvious olfactory evidence of contamination.	0.0		
3						Becoming slightly clayey from 2.30 mbgl. Greyish brown, slightly sandy CLAY. No obvious visual or olfactory evidence of contamination. [ALLUVIUM]	0.0	SPT = 5	2.65 m
					3.50				
4						Brownish grey, clayey, fine to medium SAND. No obvious visual or olfactory evidence of contamination. [KEMPTON PARK GRAVEL] Rare to occasional, fine to medium, subangular to subrounded flint gravels within sand from 4.3 mbgl.	0.0	BH6/1 SPT = 4	3.8 - 4.0 m Duplicate B 4.2 m
5					5.20			SPT = 10 BH6/BS1	5.2 m 5.2 - 6.2 m
					6.70	Medium dense brownish grey, sandy, fine to coarse, angular to subrounded GRAVEL of flint. Sand is medium to coarse. Weak hydrocarbon odour. [KEMPTON PARK GRAVEL] Becoming slightly clayey from 6.6 mbgl.	0.4	SPT = 20	5.65 m
7					7.20	Grey, slightly gravelly, slightly sandy CLAY. Gravels are angular to subrounded fine flints with fine sand within clay. No obvious visual or olfactory evidence of contamination. [KEMPTON PARK GRAVEL]	6.8	BH6/BS2	7.2 - 7.7 m
					7.80	Grey, slightly sandy, very clayey, fine to coarse, angular to subrounded GRAVELS of flint. Weak hydrocarbon odour. [KEMPTON PARK GRAVEL]		BH6/3	7.4 - 7.8 m
8						Firm to stiff grey, slightly sandy CLAY. No obvious visual or olfactory signs of contamination. [LONDON CLAY FORMATION]	0.0	SPT = 14	8.05 m 8.1 m
9								SPT = 21	9.7 m
10									

NOTES

Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm (ID)

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH6

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 01/05/13

EASTING: 535379.19

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191151.32

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.53 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 33	10.75 m
12								SPT = 30	12.3 m
13		12.9 m			12.90	End of borehole.			
14						12.9 m			
15									
16									
17									
18									
19									
20									

NOTES

Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm (ID)

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH7

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 24/04/13 - 25/04/13

EASTING: 535465.29

SITE: Tottenham Marshes

LOGGED BY: Phil Harrison

NORTHING: 191424.89

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.80 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
						MADE GROUND Dark brown, clayey, gravelly sand. Sand is fine to coarse. Gravel is subangular to subrounded flint, brick, wood and coal. Occasional roots and rootlets. No obvious visual or olfactory evidence of contamination. Below 0.2 mbgl fragments of glass, ceramic and metal.	0.3		0.5 m
1					0.75				
						MADE GROUND Reddish brown, slightly clayey, sandy gravel. Sand is fine to coarse. Gravel is angular to subrounded, fine to coarse flint, brick and concrete with occasional cobbles of brick. Occasional roots and rootlets. No obvious visual or olfactory evidence of contamination	0.0	BH7/2.0 SPT = 7	1.4 - 2.0 m 1.5 m 1.65 m
2					1.50				
						MADE GROUND Reddish brown, clayey, gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded, fine to medium flint and brick. No obvious visual or olfactory evidence of contamination.			
					2.20			SPT = 14	2.65 m
3						Firm, grey, slightly sandy CLAY. Orange and black mottling throughout. Slight organic odour. No obvious visual or olfactory evidence of contamination. [ALLUVIUM] Between 3.2 mbgl and 4.2 mbgl becoming soft with occasional pockets of peat.			
4					4.20				
						Soft greenish dark grey CLAY. Strong organic odour. No obvious visual or olfactory evidence of contamination. Occasional medium to coarse, subangular to rounded gravels of flint from 4.7 mbgl.	0.0	SPT = 7 SPT = 3	4.2 m 4.65 m
5					4.80				
						Yellow and grey, slightly clayey, gravelly, fine to coarse SAND. Gravels are subangular to rounded fine to coarse flint. Moderate hydrocarbon odour. Becoming more gravelly and less clayey with depth. [KEMPTON PARK GRAVELS] Medium dense yellowish grey, sandy, fine to coarse, angular to rounded GRAVEL of flint with medium to coarse sand. (Fines may have been flushed out by drilling process). Weak hydrocarbon odour. No odour from 6.0 mbgl.	0.0 0.4	BH7/BS1 SPT = 13	5.0 - 6.0 m 5.1 m 5.65 m
6					5.10				
						Stiff brownish grey, slightly sandy CLAY. No obvious visual or olfactory evidence of contamination. [LONDON CLAY FORMATION]	0.1	SPT = 24	6.0 m 6.65 m
7					6.40				
								SPT = 18	8.3 m
8									
9									
10								SPT = 20	9.8 m

NOTES

Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary percussion
Borehole Diameter: 128 mm
Screen Material: HDPE
Screen Diameter: 50 mm
Screen Slot Size: 1 mm
Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH7

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 24/04/13 - 25/04/13

EASTING: 535465.29

SITE: Tottenham Marshes

LOGGED BY: Phil Harrison

NORTHING: 191424.89

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.80 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 21	11.3 m
12								SPT = 24	12.9 m
13								SPT = 28	13.85 m
14									
15		14.9 m			14.90	End of borehole.		SPT = 30	15.35 m
16						14.9 m			
17									
18									
19									
20									

NOTES

Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH8

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 08/05/13

EASTING: 535443.52

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191448.74

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 9.92 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
					0.20	MADE GROUND Topsoil with brambles, nettles and grass.			
					1.40	MADE GROUND Brown to grey slightly clayey gravelly fine to medium sand with subangular to subrounded fine to coarse gravels of flint and brick. Cobbles of brick. Becoming darker grey with organic material from 0.6 mbgl. Slight organic odour.			
					2.30	Light brown to grey with orange mottling slightly sandy moist CLAY. Sand is fine. No obvious visual or olfactory evidence of contamination. [ALLUVIUM]	0.6	SPT = 7 BH8/2.0	1.65 m 1.9 - 2.2 m 1.9 - 2.0 m
					3.10	Dark grey clayey fine to medium SAND with some decaying wood fragments. Strong hydrocarbon odour. Becoming gravelly from 3.0 mbgl.	32.2	BH8/1 Duplicate C	2.3 - 2.4 m 2.5 - 2.7 m 2.5 - 2.7 m
					6.00	Medium dense dark grey sandy angular to subrounded fine to coarse GRAVEL of flint with medium to coarse sand. Oily sheen and strong hydrocarbon/creosote odour. [KEMPTON PARK GRAVEL]	566.8	SPT = 5 BH8/BS1	3.2 m 3.1 - 4.1 m
					6.20	Dark grey slightly clayey gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint. [KEMPTON PARK GRAVEL]	0.0	BH8/3	3.5 - 3.6 m 3.5 - 3.7 m
						Stiff brownish grey slightly sandy CLAY with fine to medium sand sized selenite. Sand is fine. No obvious visual or olfactory evidence of contamination. [LONDON CLAY FORMATION]		SPT = 19	4.65 m
							0.0		5.0 - 5.2 m
								SPT = 14 BH8/BS2	5.65 m 5.5 - 6.5 m
							0.0		6.0 - 6.2 m
								SPT = 17	6.65 m
							0.0		8.0 - 8.2 m
								SPT = 17	8.4 m
								SPT = 19	9.8 m

NOTES

Between 4.2 and 6.2 mbgl suspected fines washed out by drilling process.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH8

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 08/05/13

EASTING: 535443.52

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191448.74

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 9.92 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11							0.0	SPT = 21	11.0 - 11.2 m
12								SPT = 25	12.8 m
13								SPT = 31	13.8 m
14									
15		15.0 m			15.00	End of borehole.		44/34cm (refusal)	15.09 m
16						15 m			
17									
18									
19									
20									

NOTES

 Between 4.2 and 6.2 mbgl suspected fines washed out by drilling process.
 Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH9

Sheet 1 of 1

PROJECT No: 51603-00

DATE: 10/05/13

EASTING: 535454.83

SITE: Tottenham Marshes

LOGGED BY: Sam Driscoll

NORTHING: 191485.65

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.02 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
					0.40	MADE GROUND Topsoil (brown clayey gravelly sand) with grass, nettles and brambles.			
					1.30	MADE GROUND Dark grey sandy subangular to subrounded fine to medium gravels of clinker, flint and brick with fine to coarse ashy sand. Occasional to rare tile fragments, glass and concrete. No obvious olfactory evidence of contamination.			
						Orange mottled light brown sandy moist CLAY with fine sand and very slight hydrocarbon odour (becoming stronger with depth). [ALLUVIUM] Becoming grey with fewer mottles from 1.6 mbgl.		BH9/2.0 BH9/2.0 SPT = 3	1.9 - 2.0 m 1.8 - 2.2 m 2.3 m
					3.20	Slightly peaty with some wood fragments from 2.9 - 3.1 mbgl. Hydrocarbon odour becoming stronger with depth.	47.6	BH9/1	2.5 - 2.6 m 2.5 - 2.7 m
						Medium dense grey to light grey gravelly medium to coarse SAND with angular to subrounded fine to coarse flint gravels. Oily sheen (greeny/yellow) with strong hydrocarbon/creosote odour. [KEMPTON PARK GRAVEL] Becomes lighter in colour with no oily sheen from 3.6 mbgl. Odour becomes weaker with depth, but still present throughout.	120.8 149.7	SPT = 12 BH9/3 SPT = 9	3.3 m 3.2 - 3.4 m 3.5 - 3.6 m 3.75 m
					5.70		3.6	BS1 BS2 SPT = 19	3.3 - 4.3 m 4.5 - 5.5 m 4.75 m
						Firm to stiff grey slightly sandy CLAY. Very faint hydrocarbon odour to 5.9 mbgl. [LONDON CLAY FORMATION] No obvious visual or olfactory evidence of contamination from 5.9 mbgl.	0.0	SPT = 17	5.75 m 5.8 - 5.9 m
								SPT = 16	7.3 m
								SPT = 19	8.6 m
					10.05	End of borehole.		SPT = 20	10.1 m
						10.05 m			

NOTES

Possible loss of fines and flushing of oily contaminants from 4.3 mbgl due to drilling process.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion
Borehole Diameter: 128 mm
Screen Material: HDPE
Screen Diameter: 50 mm
Screen Slot Size: 1 mm
Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH10

Sheet 1 of 1

PROJECT No: 51603-00

DATE: 15/01/13

EASTING: 535421.71

SITE: Tottenham Marshes

LOGGED BY: Phil Harrison

NORTHING: 191498.68

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.19 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
					0.35	MADE GROUND Light brown slightly sandy gravelly clay. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of flint and brick. Occasional rootlets.	0.0		0.0 - 0.35 m
					1.20	MADE GROUND Black slightly clayey gravelly sand. Sand is fine to coarse with much ash. Gravel is angular to subrounded fine to coarse of brick, clinker, sandstone, flint, slag and wood. Slight hydrocarbon odour.	16.2		0.35 - 1.2 m
					1.60		77.9	SPT = 5 BH10/1	1.2 m 1.3 - 1.5 m
					1.90	MADE GROUND Soft dark grey to black slightly sandy subangular to subrounded fine to coarse gravels of flint with rare brick, concrete, clinker and sandstone. Moist throughout with strong hydrocarbon odour.	1055		1.6 - 1.8 m
					2.70		333.8	BH10/2.0	1.9 - 2.0 m 2.0 - 2.2 m
					3.00	MADE GROUND Dark grey slightly gravelly sandy clay. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of flint, sandstone and brick. Oily sheen in places within the clay. Strong hydrocarbon odour.	1430	SPT = 4	2.2 m
		3.0 m			3.20				
		3.2 m			4.20	Very soft to soft grey sandy CLAY with orange fine to medium sand. Occasional sheen within clay. Strong hydrocarbon odour. [ALLUVIUM]	912.4		3.3 - 3.5 m
					4.70	Dark grey to black sandy CLAY. Sand is fine to medium. Strong hydrocarbon odour. [ALLUVIUM]	1526	SPT = 18 BH10/3	3.75 m 3.8 - 4.1
					4.70	Firm dark brown to black amorphous organic silty CLAY. Moderate hydrocarbon odour. [ALLUVIUM]	184.6		4.5 - 4.7 m
					7.20	Medium dense dark brown to black slightly clayey sandy subangular to subrounded fine to medium GRAVEL of flint with fine to coarse sand. Slight sheen with strong hydrocarbon odour. [KEMPTON PARK GRAVEL]		SPT = 19	4.7 m
					7.20	Becoming medium density sandy GRAVEL from 3.5 mbgl. Sheen is more evident and stronger hydrocarbon odour.	79.9	SPT = 20	5.7 m 5.8 - 6.0 m
					7.20	Greyish light brown gravelly fine to coarse SAND with subangular to subrounded fine to coarse gravels of flint. No obvious visual contamination within sediments, but strong hydrocarbon odour and tar observed in drilling flush water. [KEMPTON PARK GRAVEL]	85.8		6.3 - 6.5 m
					7.20	Medium dense grey sandy angular to subrounded fine to coarse GRAVEL of flint with fine to coarse sand. No obvious visual contamination observed. Moderate hydrocarbon odour. [KEMPTON PARK GRAVEL]	2506	SPT = 18 BH10/4	6.7 m 6.9 - 7.2 m
		7.3 m				Odour becomes weaker with depth, but still evident.		U100	7.7 - 8.15 m
						Firm to stiff grey slightly sandy CLAY. No obvious visual evidence of contamination. Very slight chemical odour (not typical gasworks or fuel - saline/salty odour). [LONDON CLAY FORMATION]		SPT = 18	8.25 m
								U70	9.6 - 10.05 m
								SPT = 18	10.05 m
		10.5 m			10.50	End of borehole.			
						10.5 m			

NOTES

Water strike at 2.35 mbgl after 20 minutes.

Drilling Method: Rotary percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike

 Rest Groundwater Level

All depths shown in metres below ground level.

MONITORING WELL LOG

BH11

Sheet 1 of 2

PROJECT No: 51603-00

DATE: 18/04/13, 19/04/13

EASTING: 535375.44

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191422.20

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.44 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
					0.10	MADE GROUND Asphalt.			
					0.40	MADE GROUND Concrete (non-reinforced).	0.0		
1					1.20	MADE GROUND Light brown slightly clayey gravelly fine to coarse sand with gravels of subangular to subrounded fine to coarse sandstone and flint. Occasional brick and glass fragments.		SPT = 2	1.2 m
2	2.24 mbgl on 20/05/13 2.21 mbgl on 28/05/13					Very soft dark grey to black slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is subangular fine to medium of flint. Strong hydrocarbon odour. [ALLUVIUM]	72.1	BH11/BS2 BH11/2.0	1.8 - 2.0 m 1.9 - 2.0 m
					2.65				2.1 m
					2.80	Very loose dark grey to black clayey subangular to subrounded fine to medium GRAVEL. Moderate hydrocarbon odour. [ALLUVIUM]	2.3	SPT = 3	2.65 m 2.75 m
3						Soft dark grey to black slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to medium of flint. Sand is fine to medium. Moderate hydrocarbon odour. [ALLUVIUM]	0.9		3.0 m
					3.90		0.8	BH11/1	3.4 m 3.4 - 3.6 m
4					4.20	Dark brown silty organic CLAY. Peaty. Moderate hydrocarbon odour. [ALLUVIUM]		SPT = 12	3.75 m
		4.1 m 4.2 m				Dense grey sandy subangular fine to coarse GRAVEL. Sand is fine to coarse. [KEMPTON PARK GRAVEL]		BH11/BS1	4.2 - 5.2 m
5						Becoming medium density from 5.6 mbgl.	1.4	SPT = 33	4.75 m 4.8 m
					5.90			BH11/3	5.3 - 5.5 m
6					6.10	Dark grey to black slightly sandy CLAY. Sand is fine to medium. Slight oily sheen with strong hydrocarbon odour. [KEMPTON PARK GRAVEL]	7.2	SPT = 12	5.2 m
					6.40			SPT = 16	6.0 m 6.3 m
		6.5 m				Medium density grey sandy subangular fine to coarse GRAVEL. Sand is fine to coarse. Oily sheen on gravels. [KEMPTON PARK GRAVEL]		BH11/4	6.8 - 6.9 m
7						Stiff grey slightly sandy CLAY. [LONDON CLAY FORMATION]	1.8		7.5 m
		7.2 m						SPT = 24	8.25 m
8									
9									
10					10.05			SPT = 26	9.65 m

NOTES

Drilling polymer used to flush casing from 6.1 - 6.9 mbgl.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion
Borehole Diameter: 128 mm
Screen Material: HDPE
Screen Diameter: 50 mm
Screen Slot Size: 1 mm
Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH11

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 18/04/13, 19/04/13

EASTING: 535375.44

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191422.20

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.44 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 24	11.4 m
12									
13								SPT = 25	12.9 m
14									
15									
15.6		15.6 m			15.60	Becoming hard below 15.6 mbgl			
16						End of borehole.		SPT = >30	15.6 m
17						15.6 m			
18									
19									
20									

NOTES

 Drilling polymer used to flush casing from 6.1 - 6.9 mbgl.
 Filter sock used with installation.

 Descriptions are based on observations and hand testing of grab samples.
 Mechanical tests were not performed unless otherwise stated.

 ▽ Water Strike
 ▼ Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

PROJECT No: 51603-00

DATE: 23/04/13

EASTING: 535368.78

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191395.78

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.42 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
1	1.2 mbgl on 24/04/13 1.4 mbgl on 29/04/13				0.10 0.25	MADE GROUND Tarmacadam.	1.3	BH12/1	0.4 - 0.6 m 0.5 m
						MADE GROUND Concrete (non-reinforced).		SPT = 14	1.2 m
					1.60	MADE GROUND Medium density dark brown slightly clayey gravelly fine to coarse sand with subangular fine to coarse gravels of flint, brick and sandstone. Slight hydrocarbon odour. Some cobbles of concrete from 1.0 mbgl.			
2	3.36 mbgl on 20/05/13 3.28 mbgl on 28/05/13					MADE GROUND Loose to medium density grey to dark grey slightly clayey sandy subangular fine to coarse gravel with brick, sandstone and wood. Sand is fine to coarse. Strong hydrocarbon odour.	1.6	BH12/2.0	1.8 m 1.9 - 2.0 m
							SPT = 11	2.2 m	
3					3.40		1757	BH12/3 SPT = 9	3.0 m 3.0 - 3.2 m 3.2 m
4					4.20	Dark grey to black slightly gravelly slightly sandy CLAY. Gravel is subangular to subrounded fine to medium. Sand is fine to medium. Strong hydrocarbon odour. [ALLUVIUM]	629		3.8 m
					4.70	Very soft plastic dark grey to black slightly sandy CLAY/amorphous PEAT. Sand is fine to medium. Strong hydrocarbon odour. [ALLUVIUM]		SPT = 0 BH12/4	4.2 m 4.3 - 4.4 m
5						Dense grey sandy subangular fine to coarse GRAVEL. Sand is fine to coarse. [KEMPTON PARK GRAVEL]		BH12/BS1	5.0 - 5.1 m
								SPT = 38	5.3 m
6					6.40	Slight oily sheen from 6.3 mbgl.	307.1	SPT = 37 BH12/5	6.0 m 6.3 m 6.3 - 6.4 m
7						Firm to stiff grey to dark grey slightly sandy CLAY. Sand is fine to medium. [LONDON CLAY FORMATION]	51.6		6.5 m
8								SPT = 18	7.45 m
9								BH12/6 Duplicate A	8.0 - 8.2 m 8.0 - 8.2 m
						Slight hydrocarbon odour from 8.3 mbgl.	1.9		8.3 m
10					10.05			SPT = 19	9.45 m

NOTES

Hand pit to 1.2 mbgl though large cobble encountered at 1.0 mbgl. Core barrel used to remove this cobble.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.



 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.

MONITORING WELL LOG

BH12

Sheet 2 of 2

PROJECT No: 51603-00

DATE: 23/04/13

EASTING: 535368.78

SITE: Tottenham Marshes

LOGGED BY: Danreb Pablo

NORTHING: 191395.78

CLIENT: NGPH

CONTRACTOR: CC Ground Investigations

ELEVATION: 10.42 mAOD

mbgl	WATER LEVEL	WELL		LITHOLOGY		DESCRIPTION	PID (ppm)	SAMPLE	
		DEPTH	DETAIL	LEGEND	DEPTH			LABEL	DEPTH
11								SPT = 24	11.4 m
12									
13							0.6	SPT = 22	12.8 m 12.9 m
14									
15									
15.4		15.4 m			15.40	Becoming hard from 15.4 mbgl. End of borehole.		SPT = 50	15.4 m
16						15.4 m			
17									
18									
19									
20									

NOTES

Hand pit to 1.2 mbgl though large cobble encountered at 1.0 mbgl. Core barrel used to remove this cobble.
Filter sock used with installation.

Descriptions are based on observations and hand testing of grab samples.
Mechanical tests were not performed unless otherwise stated.

 Water Strike
 Rest Groundwater Level

Drilling Method: Rotary Percussion

Borehole Diameter: 128 mm

Screen Material: HDPE

Screen Diameter: 50 mm

Screen Slot Size: 1 mm

Sand Particle Size: 2 - 3 mm

All depths shown in metres below ground level.